

REMARKS

Claims 1-9 and 11, 13 and 15-18 are all the claims pending in the application. By this Amendment, Applicant amends claims 1, 4, 7 and 11. Applicant also cancels claims 2, 12 and 14 without prejudice or disclaimer. Applicant also adds claims 19-20.

A. Objection to drawings

The Examiner has objected to FIG. 3 for allegedly being drawn to new matter. In view of the amended FIG. 3 submitted with this Amendment, Applicant respectfully requests the Examiner to withdraw the objection to the drawings. No new matter is being added.

B. Objection to the specification

The Examiner asserts, on page 6 of the Office Action, that the Amendment filed on August 20, 2007 is objected to under 35 U.S.C. § 132(a) because it introduces new matter into the disclosure. In view of the amendments to the specification submitted with this Amendment, Applicant respectfully requests the Examiner to withdraw the objection to the specification. No new matter is being added.

C. Claim objections

Claims 1-6, 11-12 and 16-18 are objected to because of minor informality in claim 1. Applicant has revised claim 1 and respectfully requests the Examiner to withdraw the objection to the claims.

D. Claim rejections - 35 U.S.C. § 101

Claims 1-9 and 11-18 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. To expedite prosecution, Applicant has

amended claim 1 to overcome the Examiner's rejection. In view of the above, Applicant respectfully requests the Examiner to withdraw the 35 U.S.C. § 101 rejection.

E. Claim rejections - 35 U.S.C. § 112, first paragraph

Claims 7-9, 13, and 15 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

In order to comply with the enablement requirement, Applicant has amended claim 7 with “a dividing module”, “first set of determination units”, “second determination unit” and “an outputting module.” Accordingly, Applicant respectfully requests the Examiner to withdraw the 35 U.S.C. § 112, first paragraph rejection.

F. Claim rejections - 35 U.S.C. § 112, second paragraph

Claims 7-9, 11, and 13-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In view of the claim amendments submitted with this Amendment, Applicant respectfully submits that claims 7-9, 11, and 13-15 comply with the requirements under 35 U.S.C. § 112, second paragraph.

G. Claim rejections - 35 U.S.C. § 102

Claims 1-2, 6-9 and 11-18 are rejected under 35 U.S.C. §102(b) as being anticipated by Kwan et al (“Implementation of DSP-RAM: An Architecture for Parallel Digital Signal

Processing in Memory,” 2001; hereinafter “Kwan”). Applicant traverses the rejection for at least the following reasons.

Claim 1 recites, *inter alia*, “wherein a cross multiplication expression, $C_t * E_{best} >< E_t * C_{best}$, is used for each code vector.”¹ Applicant respectfully submits that Kwan does not disclose *at least* this unique feature of claim 1, for at least the following reason.

Kwan is directed to DSP-RAM architecture that is composed of a linear array of Processing Elements (PE) that can exchange data with each other. Kwan discloses that the DSP-RAM architecture offers a way of computing the L2 norm of one data vector simultaneously with the many code words in parallel. In FIG. 6, Kwan discloses that the L2 codeword could be distributed over the available set of PEs and each PE would then compute **L2 norm** between the incoming data vector and its set of stored code words (page 0345). Therefore, Kwan discloses using L2 norm and does not disclose using a Cross/Energy expression for every vector as recited in claim 1.

In view of the above, Applicant submits that claim 1 is allowable over the cited reference.

Claim 7

Applicant respectfully submits that claim 7 recites subject matter analogous to claim 1, and therefore is allowable for at least the analogous reasons claim 1 is allowable.

¹ This feature is at least supported by page 9, lines 11-12 of the specification.

Claims 2, 6, 8, 9 and 11-18

Applicant submits that claims 2, 6, 8, 9 and 11-18 depend from either claim 1 or 7, and therefore are allowable at least by virtue of their dependency.

H. Claim rejections - 35 U.S.C. § 103

Claims 3-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwan et al in view of Davidson et al (US Patent 4,868,867). Applicant traverses the rejection for at least the following reasons.

Claims 3-5

Applicant submits that since claims 3-5 depend from claim 1, and since Davidson does not cure the deficiency noted above with respect to claim 1, claims 3-5 are allowable at least by virtue of their dependency.

I. New claims

Applicant adds new claims 19-20, which are patentable at least by virtue of their dependency and for additional features set forth therein, to provide more varied protection.

J. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No.: 10/617,210

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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